

## ABSTRACT OF THE DISCLOSURE

Techniques for assigning a network address to a host are based on authentication for a physical connection between the host and an intermediate device. One approach involves receiving first data at the intermediate device from an authentication and authorization server in response to a request for authentication for the physical connection. The first data indicates at least some of authentication and authorization information. A configuration request message from the host is also received at the intermediate device. The configuration request message is for discovering a logical network address for the host. A second message is generated based on the configuration request message and the first data. The second message is sent to a configuration server that provides the logical network address for the host. The configuration server is then able to provide the logical network address based on authorization and authentication information. The logical network address is thus based on the user, as is desirable to determine accounting information for billing purposes, to provide a minimum quality of service (QoS) according to a contract with the user, or to limit access by the user to the Internet and other services.